

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

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1. (Currently Amended) A switching system which includes a plurality of devices formed in a dual active structure, a device controller for controlling the devices, and a main processor, a path management and testing method for ~~a~~ the switching system, comprising:

B<sup>1</sup> A<sup>1</sup> using the device controller to automatically check a valid path and state change for each board, for forming a database using the main processor;

B<sup>1</sup> searching the database and confirming a standby path; and

C<sup>1</sup> performing a path test for the entire interval or a certain interval with respect to the active or standby path.

2. (Previously Amended) The method of claim 1, wherein said forming a path state database for each board includes:

using the device controller to read a valid path for each board to a device at an initial state stage and inform the main processor of the read path;

using the main processor to form a database using the read path;

checking a device-based state change at a certain period; and  
editing the database based on the state change.

3. (Previously Amended) The method of claim 1, wherein when checking the active path, in which an active path to the matched last receiving board is checked by the receiving side terminal, and the active path is checked in the reverse direction of the data transmission direction, and the entire active paths are searched by checking the switching path of the boards connected with the active path.

4. (Currently Amended) The method of claim 1, wherein in said standby path setting, in the case that a certain path is set as an active path which is different from the current path by checking the valid path for each board with respect to the standby path which is set as the a reverse path of the active path, the set path is changed.

5. (Previously Amended) The method of claim 1, wherein said path test includes:  
receiving a parameter value used for a path test;  
forming a test path based on the parameter value;  
inserting a test pattern data into an input side device;  
extracting a test pattern data from an output side device; and

judging an error with respect to the test path interval by comparing an input data and an extraction data.

6. (Previously Amended) The method of claim 5, further comprising setting a number of repetitions and setting a period for thereby repeatedly performing the test.

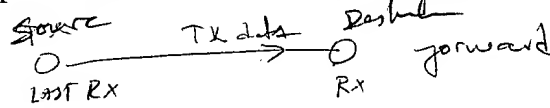
7. <sup>//</sup> (Previously Amended) The method of claim 5, further comprising performing an interval-based path test when the input data and the extracted data are different and searching an error interval.

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8. (Original) The method of claim 5, wherein said parameter value indicates the kind of a test path and a test type, a board for inserting or extracting a test pattern data, a subsystem in which the board is mounted, a link number in the subsystem, and a pattern data used for the test.

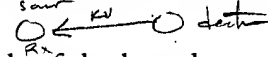
9. (Original) The method of claim 8, wherein said parameter value includes a value which indicates a test repetition period and repetition number.

10. (Currently Amended) In a switching system of a dual active structure, an actual active path judging method, comprising:

automatically checking an active path formed in a direction of a matched last receiving board at a receiving side terminal;



checking an active path in the reverse direction of a data transmission direction;



searching an entire active path by checking a switching path of the board connected to the active path without requiring user action.

11. (Currently Amended) In a switching system of a dual active structure, a standby path test method, comprising:

automatically checking an active path formed in a direction of a matched last receiving board at a receiving side terminal, checking an active path in the reverse direction of a data transmission direction, and searching an entire active path by checking a switching path of the board connected to the active path;

setting a reverse path of the active path as a standby path; and

performing a path test with respect to the set standby path.

12. (Currently Amended) The method of claim 11, wherein said path test includes:

receiving a certain parameter value needed for a path test;

forming a switching path based on the set standby path;

inserting a test pattern data into the input side device;

extracting a test pattern data into from the input output side device;

judging whether there is an error in the standby path based on a comparison result with respect to the input data and the extraction data; and

searching an error interval by performing an inter-based path test in the case that the input data and the extracted data are not same.

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13. (Amended) The method of claim 12, further comprising repeatedly performing a test by setting a number of repetitions and period.

14. (Original) The method of claim 12, wherein said parameter value indicates a test type, a board for inserting or extracting a test pattern data, a subsystem for mounting the board, a link number in the subsystem, and a pattern data used for the test.

15. (Original) The method of claim 14, wherein said parameter value indicates a test repetition period and repetition number.

16. (Currently Amended) A path management and testing method for a switching system, comprising:

automatically checking a valid path and state change for components within the switching system;

searching for and confirming a standby path within the switching system; and

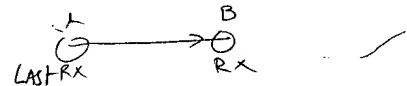
performing a path test for the entire interval or a certain interval with respect to the active or standby path.

17. (Previously Added) The method of claim 16, wherein the valid path and state change for each component is stored in a database.

18. (Previously Added) The method of claim 16, further comprising repeatedly performing a test by setting a number of repetitions and periods.

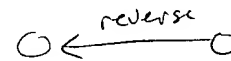
19. (Currently Amended) A path management and testing method for a switching system, comprising:

automatically checking an active path formed in a direction of a matched last receiving device at a receiving location;



checking an active path in the reverse direction of a data transmission direction;

and



searching an entire active path by checking a switching path of the device connected to the active path.

20. (Previously Added) The method of claim 16, further comprising repeatedly performing a test by setting a number of repetitions and period.